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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,686	12/31/2003	Seong Chull Choi	11037-166-999	2209
24341	7590	09/07/2004	EXAMINER	
MORGAN, LEWIS & BOCKIUS, LLP. 2 PALO ALTO SQUARE 3000 EL CAMINO REAL PALO ALTO, CA 94306			MILLER, TAKISHA S	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/750,686

Applicant(s)

CHOI, SEONG CHULL

Examiner

Takisha Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/31/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Korea on 9/25/03. It is noted, however, that applicant has not filed a certified copy of the 10-2003-0066538 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gow (6,361,570).

- a. With respect to claims 1, 3 and 8 Gow teaches an arm assembly comprising an upper arm unit (5) of which an upper portion (4) is connected to a body (2), a lower arm unit (9) pivotally connected to a lower portion (6) of the upper arm unit (5), a wrist joint (30) of which a first end is rotatably connected to the lower arm unit (9) and a hand unit (12) pivotally connected to a second end of the wrist joint (30) (Col. 4, line 62 – Col. 5, line 2), wherein the upper arm unit (5) (Col. 4, lines 26-28) comprises a housing (15) and a driving device (22) disposed in the housing (15) for driving the lower arm unit (9) (Col. 4, lines 19-23). Gow fails to teach the arm assembly for a crash test dummy. It would have been obvious to one of ordinary skill in the art to modify Gow to be used in a crash

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test dummy in order to enhance the functions of a crash test dummy. Furthermore, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

b. With respect to claims 2 and 9, Gow teaches an arm assembly wherein the driving device comprises a motor (22) and a gear unit (19,25) that is driven by the motor (22), the gear unit (19,25) configured to drive the lower arm unit (9) to undergo pivotal motions (Col. 4, lines 19-23).

4. Claims 4-7,10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gow (6,361,570) in view of Freeland (4,332,038).

a. With respect to claims 4-6,10 and 11, Gow teaches an arm assembly comprising a hand unit (12) but lacks teaching the hand unit comprising a first plate, a second plate, a first connecting rod, a second connecting rod, a third connecting rod, a fourth connecting rod and an elastic member. Freeland teaches hand unit comprising a first plate (65) and a second plate (65) that are disposed to face each other (Fig.6), a first connecting rod (23) coupled respectively to the first and second plates (65), a wrist joint (17) pivotally connected to the first connecting rod (23)(Fig.1), a second connecting rod (56) coupled respectively to the first and second plates (65) such that the second connecting rod (56) restricts pivotal motions of the wrist joint (17) with respect to the first connecting rod (23)(Fig.6), a first finger unit (18/19) pivotally coupled to the first and second plates (65), a second finger unit (21) pivotally coupled to the first and second plates (65), and the

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second finger unit (21) being connected to the first finger unit (18/19) such that the second finger unit (21) moves together with the first finger unit (18/19), an elastic member (32/11/12) biasing the first finger unit (18/19) so that the first finger unit (18/19) and the second finger unit (21) are in a grasping state, a third connecting rod (29/31) connected respectively to the first and second plates (65) such that the third connecting rod (29/31) restricts a pivotal motion of the first finger unit (18/19)(Col. 3, lines 28-32) and a fourth connecting rod (43) connected respectively to the first and second plates (65) such that the fourth connecting rod (43) restricts a pivotal motion of the second finger unit (21)(Col. 4, lines 59-68). It would have been obvious to one of ordinary skill in the art to modify Gow to include the above limitations as taught by Freeland in order to more effectively operate the grasping/gripping features of the hand unit (see Freeland; Abstract, lines 5-8).

b. With respect to claim 7, Gow as applied in claim 4 teaches the elastic member (32/11/12) made of a cable material. The particular type of material used to make the elastic member, absent any criticality, is only considered to be the use of a “ preferred ” or “ optimum ” material out of a plurality of well known materials that a person having ordinary skill in the art at the time the invention was made would have find obvious to provide using routine experimentation based, among other things, on the intended use of Applicant’s apparatus, i.e., suitability for the intended use of Applicant’s apparatus. See In re Leshin, 125 USPQ 416 (CCPA 1960) where the court stated that a selection of a material on the basis of suitability for intended use of an apparatus would be entirely obvious. It would have been obvious to one of ordinary skill in the art to modify Gow as

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applied in claim 4 to include a coil spring as the elastic member in order to use a variety of elastic member which are readily available in the art (MPEP 2144).

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gow (6,361,570) in view of Radocy et al. (5,085,665)(hereinafter Radocy). Gow teaches an arm assembly as applied in claim 1 but lacks teaching a circular recession on the wrist joint, a cylindrical recession in the lower arm and a circular protrusion formed along the cylindrical recession. Radocy teaches a wrist joint comprising a circular recession, a cylindrical recession in a lower arm and a circular protrusion formed along the cylindrical recession (Figs. 12,13). It would have been obvious to one of ordinary skill in the art to modify Gow to include the above limitations as taught by Radocy in order to utilize a quick release adapter adapted to accommodate different attachment devices of prosthetic wrists (see Radocy; Col. 9, lines 43-61).

6. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gow (6,361,570) in view of Radocy et al. (5,085,665)(hereinafter Radocy) as applied to claim 12 above, and further in view of Freeland (4,332,038). Gow as applied to claim 12 teaches an arm assembly but lacks teaching a circular plate and a friction member. Freeland teaches a circular plate (Fig.6) having a through hole formed in the center portion and a friction member (41) disposed between the circular plate (Fig.6) and the first and second plates (65). It would have been obvious to one of ordinary skill in the art to modify Gow as applied to claim 12 to include a circular plate and friction member as taught by Freeland in order to maintain the second finger unit in prepositioned locations (see Freeland; Col. 4, lines 27-33).

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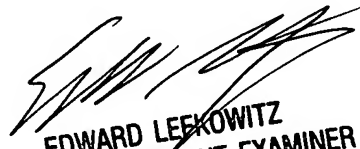
Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 2004/0015240; 5,800,572; 2,415,145; 6,424,886; 4,225,983; 1,499,052 teaches arm assemblies.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Takisha Miller whose telephone number is (571) 272-2184. The examiner can normally be reached on Monday - Friday (7:00 am - 3:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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